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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/739,387	12/19/2000	Toshihiro Uehara	Q62300	3310

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EXAMINER

IP, SIKYIN

ART UNIT	PAPER NUMBER
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1742

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DATE MAILED: 03/15/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

MF-4

Office Action Summary

Application No.	Applicant(s)		
Examiner	Group Art Unit		

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 1/4/02
- ☒ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-23 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-23 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____.
 - ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☐ Interview Summary, PTO-413
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

Office Action Summary

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-7, 11-16, and 22-23 are rejected under 35 U.S.C. § 103 as being unpatentable over USP 5538683 to Pinnow et al (PTO-1449, col. 3, lines 3-16).

4. The cited reference(s) disclose(s) the features including the claimed maraging steel alloy composition. The difference between the reference(s) and the claims are as follows: Some cited references may not disclose claimed optional elements, but said elements have contents read on zero which suggests said elements could be eliminated from instant claims. Therefore, the subject matter as a whole would have been

obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the subject matter disclosed by the reference. Overlapping ranges have been held to be a prima facie case of obviousness, See MPEP § 2112.01, In re Best, 195 USPQ 430, In re Malagari, 182 USPQ 549, In re Titanium Metals Corporation of America v. Banner, 227 USPQ 773 (Fed. Cir. 1985), In re Woodruff, 16 USPQ 2d 1934, and In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976).

5. Claims 7 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over reference as applied to claims 1-6 and 11-16 above, and further in view of Whitaker.

6. The claimed subject matter as is disclosed and rejected above by the cited reference(s) except for the claimed grain size. However, Whitaker in the abstract teaches refined grain size would improve maraging steel strength and ductility in the same field of endeavor or the analogous metallurgical art. Therefore, it would have been obvious to one having ordinary skill in the art of the cited references at the time the invention was made to refine grain size as taught by Whitaker in order to improve/provide maraging steel strength and ductility. In re Venner, 120 USPQ 193 (CCPA 1958), In re LaVerne, et al., 108 USPQ 335, and In re Aller, et al., 105 USPQ 233.

7. Claims 8-10 and 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over references as applied to claims above, and further in view of JP 62080225 (abstract) or JP 63026345 (abstract).

8. The claimed subject matter as is disclosed and rejected above by the cited reference(s) except for nitriding and residual compression stress. However, JP 62080225 or JP 63026345 teaches residual compression stress would be induced by nitriding in the same field of endeavor or the analogous metallurgical art for the purpose of improve bending fatigue strength. Therefore, it would have been obvious to one having ordinary skill in the art of the cited references at the time the invention was made to nitride the maraging steel as taught by JP 62080225 or JP 63026345 in order to improve/provide the fatigue strength. In re Venner, 120 USPQ 193 (CCPA 1958), In re LaVerne, et al., 108 USPQ 335, and In re Aller, et al., 105 USPQ 233.

Response to Arguments

9. Applicant's arguments filed January 4, 2002 have been fully considered but they are not persuasive.

10. Applicants argue that the maraging steel of Pinnow contains Co greater than 7 wt.%. But, 7 wt.% Co is no difference from "less than 7 wt.% Co." It is well settled that a prima facie case of obviousness would exist where the claimed ranges and prior

art do not overlap but are close enough that one ordinary skilled in the art would have expected them to have the same properties, *In re Titanium Metals Corporation of America v. Banner*, 227 USPQ 773 (Fed. Cir. 1985), *In re Woodruff*, 16 USPQ 2d 1934, and *In re Aller*, 105 USPQ 233.

11. Applicants argue that the examples of Pinnow contain Co more than 10 wt.%. However, it is well settled that the examples of the cited reference are given by way of illustration and not by way of limitation. *In re Boe*, 148 USPQ 507 (CCPA 1966) and *In re Snow*, 176 USPQ 328. Moreover, there is no evidence the claimed less than 7 wt.% Co is critical.

12. Applicants' argument as set forth in pages 5 and 6 of the instant remarks is noted. But, the claimed Si, Mn, and O contents read on zero which is found inconsistent with applicants' argument.

13. Applicants argue the maraging steel of Whitaker contains 2 wt.% Mo which is less than the instant claimed 3 to 7 wt.% Mo. But, the Mo content does not change maraging steel class to non-maraging steel class.

14. Applicants' argument as set forth in page 11 of the instant remarks is noted. But, for the reason as set forth above the claimed maraging steel composition is taught by Pinnow reference.

Conclusion

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Applicant is reminded that when amendment and/or revision is required, applicant should therefore specifically point out the support for any amendments made to the disclosure. See MPEP § 2163.06 (a) and 37 C.F.R. § 1.119.

Examiner Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Ip whose telephone number is (703) 308-2542. The examiner can normally be reached on Monday to Friday from 5:30 A.M. to 2:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Roy V. King, can be reached on (703)-308-1146.

The facsimile phone number for this Art Unit 1742 are (703) 305-3601 (Official Paper only) and (703) 305-7719 (Unofficial Paper only). When filing a FAX in Technology Center 1700, please indicate in the Header (upper right) "Official" for papers that are to be entered into the file, and "Unofficial" for draft documents and other communication with the PTO that are not for entry into the file of the application. This will expedite processing of your papers.

S. Ip
March 14, 2002



SIKYIN IP
PRIMARY EXAMINER